

## **Determination of Public Land (Rangeland) Health for 64047 RED BLUFF FARM**

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these Standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on the assessments, it is my determination that the Public Lands within the Red Bluff Farm Allotment #64047 meet the Upland Sites Standard and (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard. There are no Public Land riparian areas on this allotment, therefore this Standard will not be addressed.

/s/ T. R. KREAGER

Assistant Field Manager

09/26/2003

Date

# Standards of Public Land Health

## Evaluation of 64047 RED BLUFF FARM Allotment

### [ 08/28/2003 ]

The Roswell Field Office conducted rangeland health assessments at one study site within RED BLUFF FARM Allotment #64047. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
64047-IDSU-A158	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for the Red Bluff Farm allotment; 10 of these indicators assessed soil/site stability, 11 assessed hydrologic functions and 13 assessed biotic integrity. These qualitative assessments, along with quantitative information from monitoring studies on one (1) study area, were utilized to assess the rangeland health of the public land within the allotment.

This allotment is located on uplands above the Pecos River near the Five Mile Draw. The allotment is a part of a larger ranch called the Red Bluff Ranch. There are limited amounts of BLM land within this allotment, overall livestock numbers are not controlled within this allotment.

The allotment operator practices livestock pasture rotation and grazes conservatively. Mineral and water are also used to move livestock within the pastures. These management practices have helped to promote healthy rangelands and sustain the vegetation during current drought conditions.

Drought conditions, as applied to forage production is the highest concern that the evaluators had on this assessment. Biotic and upland indicators were all within an acceptable range, there is no riparian area associated on BLM lands within this allotment.

Invasive mesquite is scattered throughout the area. While mesquite is present, it is not in high enough density to warrant treatment. There was little evidence of decreased infiltration or accelerated erosion on the site.

The site has a good mix of herbaceous vegetation and other native species, a noted absence was grama species. Bare ground and litter amounts were within the acceptable range as indicated by the ecological site description.

There is moderate oil and gas development in the area. Proper maintenance of roads and locations should lower the amount of run-off and erosion.

In this area the drought and wind and water erosion in the area has had a minor effect on the hydrologic indicators which are rills, water flow patterns, pedestals and/or terrecetts, bare ground amount, gullies, wind scoured blowouts and/or depostions areas, litter movement, soil surface resistance to erosion, soil surface loss or degradation, plant community compositon and distribution relative to infiltration and runoff, compaction layer, litter amount and physical crusts. The indicators for soils and hydrology rated as none to slight and slight to moderate. Rock outcrops of gypsum and dolomite occur in the area from the Seven Rivers Formation. The HOLLOMEX-GYPSUM LAND-ALAMA soils in the area are underlain by gypsum, mudstone, and dolomite of the Seven Rivers Formation.

It is the professional opinion of the Assessment Team that the public land within this allotment meets the Upland and Biotic standards.

**Recommendations:** Recommend continued monitoring of the area to determine if invasive species increase or remain static. If oil and gas developments continue or increase, then an overall plan for development may be considered.

There have been isolated occurances of african rue, a noxious weed. The populations have been treated, additional monitoring and treatment is necessary to keep the weed from spreading.

RFOs Upland and Biotic Standard Assessment Summary Worksheet						
SITE 64047-IDSU-A158						
Legal Land Desc	NWNW 6 0070S 0260E Meridian 23		Acreage	358		
Ecosite	042CY007NM LOAMY SD-3		Photo Taken	N		
Watershed	13060003200 FIVE MILE					
Observers	SCHMIDT/NAVARRO/M. HILLMAN		Observation Date	08/28/2003		
County Soil Survey	NM644 CHAVES NORTH		Soil Var/Taxad			
Soil Map Unit	HKD		Soil Taxon Name	HOLLOMEX		
Texture Class	NM644 L		Soil Phase	HOLLOMEX-GYPSUM LND-ALAMA		
Texture Modifier	NM644 LOAM					
Observed Avg Annual Precipitation			Observed Avg Growing Season Precipitation			
NOAA Annual Precipitation	11.83		NOAA Growing Season Precipitation	7.49		
NOAA Avg Annual Precipitation	12.74		NOAA Avg Growing Season Precipitation	10.38		
Disturbances and Animal Use:	<p>This area was grazed in the dormant season during 2002-2003. No appreciable precipitation has occurred since the livestock were rotated out of this pasture (Cottonwood Pasture).</p> <p>Water is hauled into the area near where we ran the assessment for livestock. We ran the study approximately 350 yards east of the UTM coordinates at the top of the form.</p>					
Part 2. Attributes and Indicators						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X

Comments:						
S H	Water Flow Patterns					X
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:	Gyp patches scattered in area.					
S H	Bare Ground				X	
Comments:	Presently around 50%, site description call for 40-50%. No long term data available.					
S H	Gullies				X	
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:	Matches					
H	Litter Movement					X
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Matches					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Drought influenced					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:	Mesquite present, but does not appear to hinder infiltration.					
S H B	Compaction Layer				X	
Comments:	Some O&G roads, Pipelines and pads, some livestock trailing.					
B	Functional/Structural Groups				X	
Comments:	Absence of some herbaceous species (grama), mesquite present in area.					
B	Plant Mortality/Decadence					X
Comments:	Drought influenced, estimate					
H B	Litter Amount				X	
Comments:	ESD calls for 25-30%					
B	Annual Production			X		
Comments:	Drought influenced, ESD calls for 600-1200 lbs/acre. Current estimate 325-400 lbs./acre					

B	Invasive Plants			X		
Comments:	Scattered Mesquite.					
B	Reproductive Capability of Perennial Plants					X
Comments:	Rotation of livestock, removed prior to seedhead development.					
S	Physical/Chemical/Biological Crusts					X
Comments:	Physical crust present (silt capping).					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur					
B	Special Status Species Populations					X
Comments:	None known to occur					
<b>Part 3. Summary</b>						
A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.						
Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	6	4
H	Hydrologic	0	0	0	8	3
B	Biotic	0	0	2	7	4
B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the <i>Does not Meet</i> column, Moderate becomes <i>May Need More Info</i> , and Slight to Moderate and None to Slight merge to form the <i>Meets</i> columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.						

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	0	11
Biotic		0	2	11
<p>Site Notes: This area sits within the Red Bluff ranch but was acquired seperately and is a seperate grazing allotment. The Red Bluff ranch practices rotational grazing, moderate stocking levels and utilizes mineral and water placement to help distribute livestock. Drought is the largest influence presently affecting the area, and changes in livestock management due to the drought have aided in keeping the landscape healthy.</p> <p>Overall the site is in good condition given the drought conditions. Mesquite, although present is not dominating the site and herbaceous vegetation is holding on site. Of concern was the lack of black and blue grama on the site.</p>				

# 64047

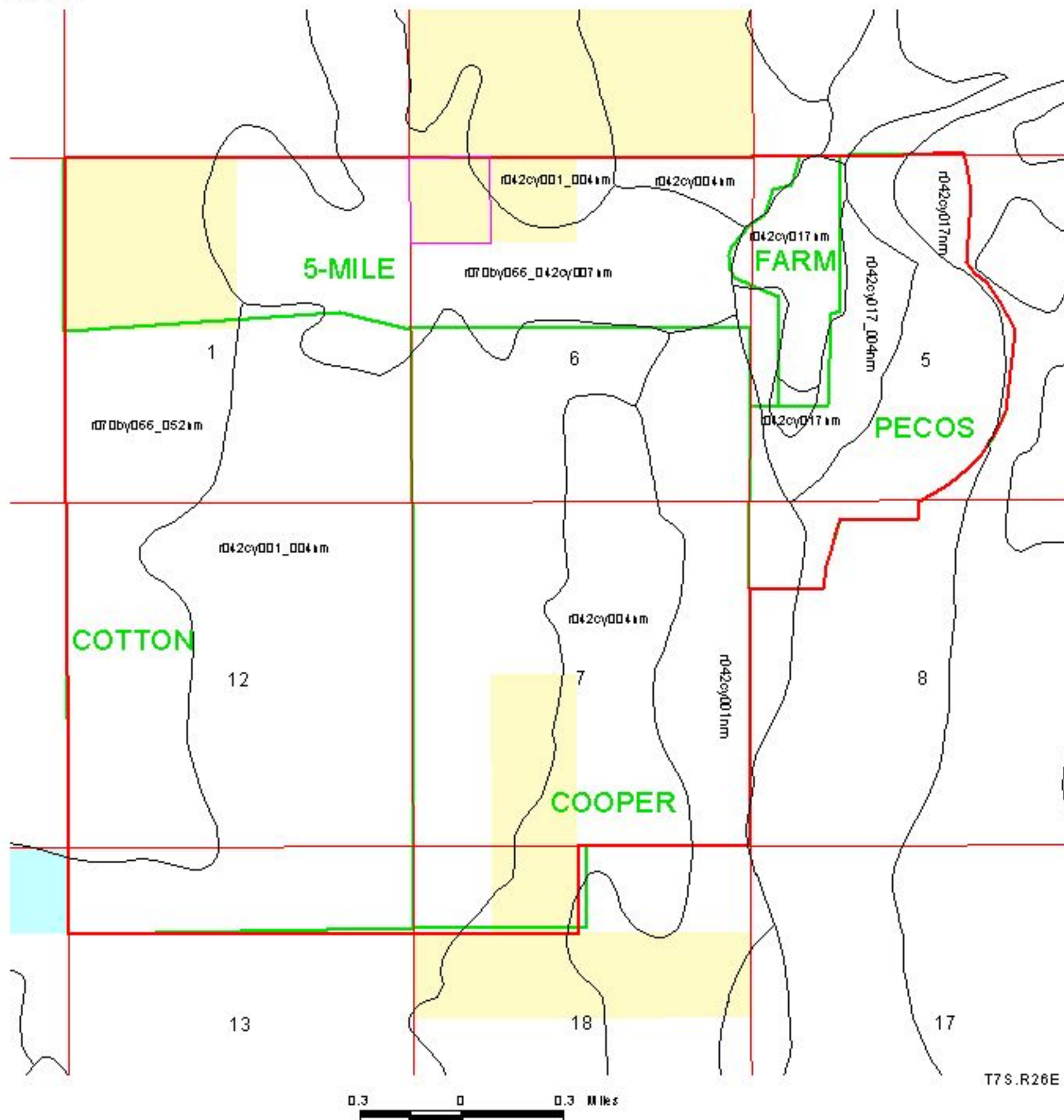






Allotment 64047

T6 S. R25E



T7 S. R26 E



Public



## Study Plots



State



Private



Pasture Boundary



Ecological Site Boundary



### Allotment Boundary

Produced by the Roswell Field Office  
GIS Intern on July 7, 2003.

His laboratory is one of the few centers of Latin American research in the country, and he has developed a special interest in the history of education in Latin America, particularly in the area of primary and secondary education. He has published several books and articles on these subjects. He is also a member of the National Academy of Sciences and the National Academy of Education.

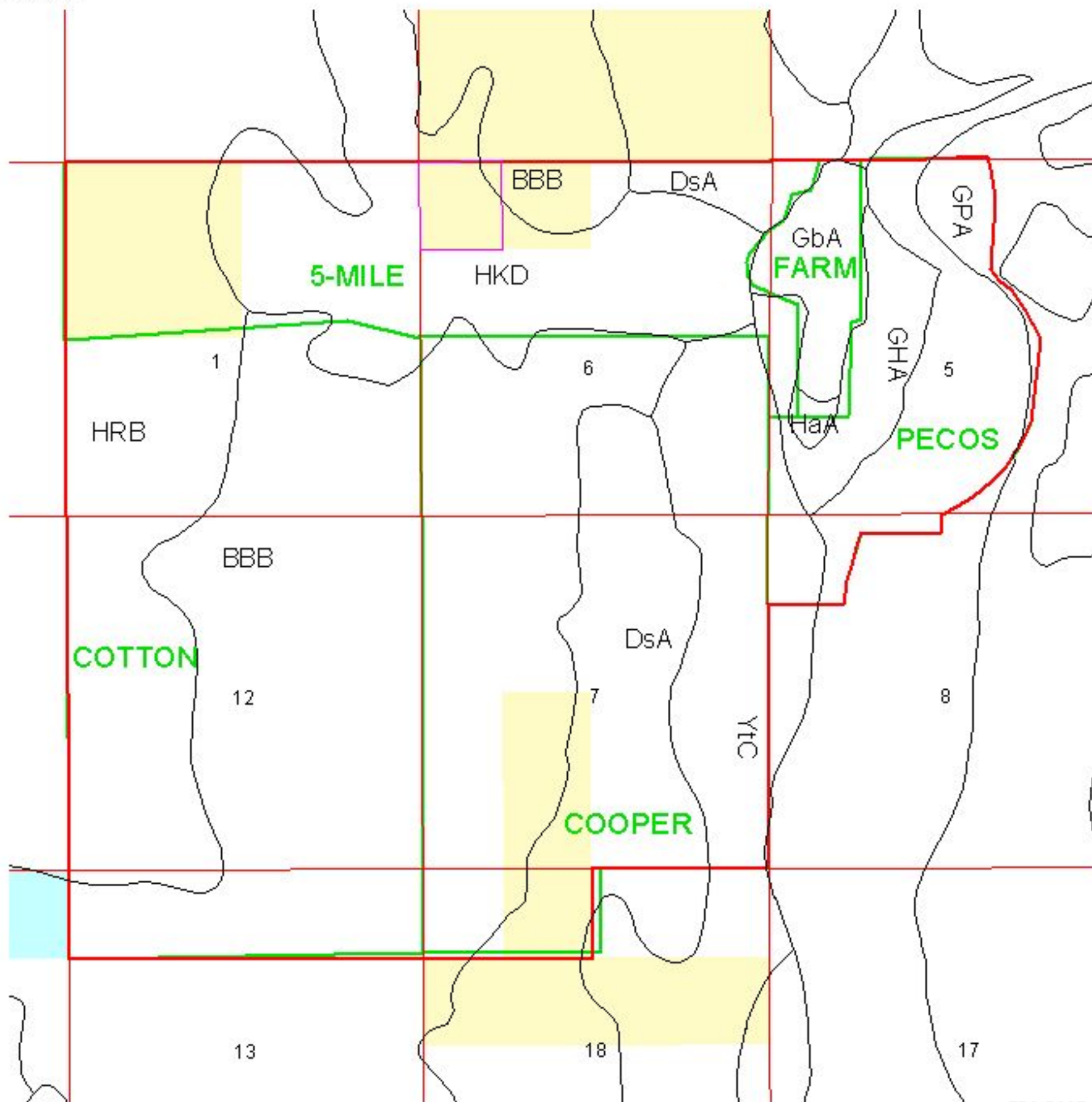


# Rangeland Health Assessment Soil Mapping Units

Allotment 64047



T6S.R25E



T7S.R26E

0.3 0 0.3 Miles



Public



State



Study Plots



Private



Pasture Boundary



Soil Mapping Units



Allotment Boundary

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GIS Intern on July 7, 2003.

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